Lauren M. Rule (OSB #015174)
Elizabeth H. Potter (OSB #105482)
ADVOCATES FOR THE WEST
3701 SE Milwaukie Ave. Ste. B
Portland, OR 97202
(503) 914-6388
lrule@advocateswest.org
epotter@advocateswest.org

Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
PORTLAND DIVISION

NORTHWEST ENVIRONMENTAL DEFENSE CENTER, **WILDEARTH GUARDIANS**, and **NATIVE FISH SOCIETY**,

Plaintiffs,

v.

U.S. ARMY CORPS OF ENGINEERS and **NATIONAL MARINE FISHERIES SERVICE**,

Defendants,

and

CITY OF SALEM and **MARION COUNTY**,

Defendant-Intervenors,

Case No. 3:18-cv-00437-HZ

MOTION FOR SUMMARY JUDGMENT AND MEMORANDUM IN SUPPORT

Oral Argument Set For February 19, 2020, 9:00 a.m.

MOTION FOR SUMMARY JUDGMENT

Pursuant to Federal Rule of Civil Procedure 56 and Local Rule 56.1, Plaintiffs Northwest Environmental Defense Center, WildEarth Guardians, and Native Fish Society hereby move the Court to enter summary judgment in their favor on all of the Claims for Relief in their Complaint. Summary judgment is appropriate as these claims involve no genuine dispute of material fact, and Plaintiffs are entitled to judgment as a matter of law.

This motion is supported by the accompanying memorandum in support; Declarations of Kirk Schroeder, John Johnson, Richard Domingue, Thomas Derry, Jeff Dose, Conrad Gowell, David Thomas, and Marlies Wierenga; the administrative records filed by Defendants; exhibits filed by Plaintiffs; the Complaint in this matter; and such other and further material as may be presented to the Court before decision hereon. Oral argument is set for this motion on February 19, 2020 at 9:00 a.m.

MEMORANDUM IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT

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INTRODUCTION

This Court is now familiar with most of the relevant facts and the legal claims at issue here, which were set forth during the preliminary injunction phase of this case. As recognized by the Court, Upper Willamette River Chinook salmon ("UWR Chinook") and Upper Willamette River steelhead ("UWR steelhead") have declined precipitously over the last eighty years, due in large part to dams in the Upper Willamette River basin that impede upstream and downstream fish passage and impair water quality and water quantity. Defendant U.S. Army Corps of Engineers ("the Corps") has failed to take many actions at the dams that the National Marine Fisheries Service ("NMFS") determined were necessary for the survival and recovery of these species and thus UWR Chinook and UWR steelhead have continued to decline. In particular, lack of fish passage remains a critical problem and water temperatures and dissolved gas levels continue to impair habitat just above and below many of the dams.

NMFS set forth the critical actions needed to address these key problems and deadlines for those actions in a 2008 Biological Opinion. Over the last ten years, the Corps has failed to take or has significantly delayed most of the actions required to improve fish passage and water quality. As a result, the ongoing operation of the Willamette Project dams continues to substantially contribute to the decline of these species and the degradation of their habitat. After Plaintiffs filed this lawsuit, the Corps and NMFS agreed to reinitiate consultation over the 2008 Biological Opinion, but the Corps refused to take immediate actions to improve conditions for the fish and their habitat. During the several years it will take to complete that consultation, the operation of the Willamette Project will continue to jeopardize the survival and recovery of UWR Chinook and UWR steelhead, adversely modify their critical habitat, and kill members of each species. Accordingly, the Corps' actions violate the Endangered Species Act ("ESA").

STATEMENT OF FACTS

I. Upper Willamette River Chinook Salmon and Steelhead.

UWR Chinook and UWR steelhead have been listed as threatened species under the ESA since 1999. 64 Fed. Reg. 14308 (March 24, 1999); 64 Fed. Reg. 14517 (March 25, 1999). Subsequent status reviews of both species determined their condition had not improved. USACE 213857, 213899. The 2016 status review concluded there was likely a further decrease in the viability of UWR Chinook since the 2005 review; and the decline of the McKenzie River population was particularly concerning as that population was considered a stronghold. *Id.* at 213869, 213896. For UWR steelhead, the status review noted modest declines in abundance since 2010, and that continued declines "would be a cause for concern." *Id.* at 213896. In 2017, NMFS reaffirmed that both species are on the decline, and the agency is thinking about changing their status from threatened to endangered. USACE 049439.

Further analysis of population numbers for these species confirms their declining trends. Most UWR Chinook that now return to the Upper Willamette basin are hatchery fish, with less than 10,000 wild Chinook returning each year compared to the several hundred thousand that historically returned. Third Declaration of Kirk Schroeder ¶ 10 (filed herewith).[1] Hatchery fish are not a substitute for wild fish, and in fact are detrimental to the recovery of wild populations. *Id.* ¶¶ 11, 22. Overall numbers of wild UWR Chinook have consistently trended down from 2003 to 2019. *Id.* ¶ 32. Of the four individual UWR Chinook populations most affected by the Willamette Project dams, the North Santiam, South Santiam, and Middle Fork Willamette populations have remained at very low abundance (less than 1,000 wild fish in each population),

[1] Plaintiffs are entitled to rely on documents outside the administrative record because their legal claims against the Corps arise under the ESA citizen suit provision, not the APA. *W. Watersheds Proj. v. Kraayenbrink*, 632 F.3d 472, 475-76 (9th Cir. 2010); *Willamette Riverkeeper v. U.S. Army Corps of Eng'nrs,* No. 6:17-cv-801-MC, ECF No. 28 (D. Or. Feb. 28, 2018).

and the McKenzie population has declined by 50% in recent years. *Id.* ¶¶ 33-34. In contrast, wild Chinook in the near-by Clackamas and Sandy River basins have increased in recent years, likely due to improvements in fish passage at Clackamas River dams and removal of the Marmot Dam on the Sandy River. *Id.* ¶ 37.

UWR steelhead has also declined, with overall abundance steadily trending down from 1970 to the present and very low returns in recent years. *Id.* ¶ 35. Each of the four individual populations has decreased drastically in abundance when comparing the period since the 2008 Biological Opinion to the twenty years before the opinion (declines of 38% in North Santiam, 56% in South Santiam, 27% in Molalla, and 43% in Calapooia subbasins). *Id.* ¶ 36. But, like with Chinook, winter steelhead populations in the Clackamas and Sandy basins have increased in recent years. *Id.* ¶ 37. In sum, population trends of both species have declined since 2008, whereas other near-by populations of Chinook and steelhead have increased. *Id.* ¶¶ 37, 48.

Abundance is not the only factor when considering species' viability. Productivity, spatial distribution, and diversity are also important recovery factors. *Id.* ¶¶ 14, 38; USACE 036525. UWR Chinook and steelhead are the only anadromous salmonids to historically inhabit the Upper Willamette basin because each adapted upstream migration timing to match high spring flows that allowed them to pass above Willamette Falls. USACE 036511, 036516. This unique run timing and geographic isolation made UWR Chinook one of the most genetically distinct groups of Chinook salmon in the Columbia River Basin. *Id.* at 036511; BiOp at 3-10.[2]

Before the Willamette Project dams were built, much of the spawning habitat for these two species occurred in upper portions of the North Santiam, South Santiam, McKenzie, and

[2] The 2008 Biological Opinion for the Willamette Project begins at NMFS 0001. Due to the large number of citations to this document, Plaintiffs refer to the page numbers within the BiOp for easier reference rather than the actual Bates numbers.

Middle Fork Willamette subbasins. BiOp at 4.2-13, 4.3-13, 4.5-7, 4.5-9, 4.6-11, 4.6-13. ESA-designated critical habitat for these species includes tributaries in each of those four subbasins as well as the mainstem Willamette River. *Id.* at 3-47 to 3-64. Both species developed varied life history forms that differed in juvenile migration timing, which created important diversity within the species and added to their resilience. Third Schroeder Decl. ¶¶ 20, 31, 45. Some UWR Chinook juveniles begin emigrating downriver shortly after they are born while others wait for several months or up to a year before emigrating. USACE 036513-14. UWR steelhead juveniles rear in the tributaries for one to four years before migrating downriver. *Id.* at 036516.

All four key subbasins mentioned above contain UWR Chinook, while steelhead occur only in the North and South Santiam subbasins. The Middle Fork Chinook population may have historically been the largest population of these fish above Willamette Falls, and NMFS considers it a "core population" that is "critical to the long-term persistence of the species."[3] BiOp at 3-9, 4.2-7, 4.2-9; NMFS 3852 (population "essential for recovery of UWR Chinook"). Oregon Department of Fish and Wildlife ("ODFW") described this population as a lynchpin to recovery of the species. USACE 024150; Third Schroeder Decl. ¶ 38. Very little natural production occurs in this population now—it is almost entirely hatchery fish. BiOp at 4.2-5.

The McKenzie Chinook population is a "core" and "genetic legacy" population, and was considered a stronghold for the species due to its higher abundance and percentage of wild fish, but has declined by 50% in recent years and is now at an unacceptably high risk of extinction. BiOp at 3-9; USACE 213869; USACE 023758; Third Schroeder Decl. ¶¶ 33, 48. For the North and South Santiam subbasins, the North Santiam UWR Chinook population is a "core"

[3] "Core" populations are those that historically represented the centers of abundance and productivity for a major population group, while "genetic legacy" populations have minimal influence from hatchery fish or exhibit important life history characteristics no longer found throughout the species. NMFS 3903.

population and both UWR steelhead populations are "core" and "genetic legacy" populations, but these populations have recently declined as well and all are now at high risk of extinction. BiOp at 3-9, 3-20; USACE 765136; Third Schroeder Decl. ¶¶ 10, 13, 34, 36. In contrast to the Recovery Plan requirement that all UWR Chinook populations and three of the four UWR steelhead populations improve their status to achieve recovery of the species, the status of these populations has deteriorated. USACE 036625-26.

II. 2008 ESA Consultation Over the Willamette Project.

The Willamette Project consists of thirteen total dams, and eight occur in the four key subbasins for UWR Chinook and steelhead. *See* USACE 062090 (map of Project facilities). Four dams are located within the Middle Fork Willamette subbasin: Dexter, Lookout Point, and Hills Creek dams are on the Middle Fork itself and Fall Creek Dam is on Fall Creek, a tributary to the Middle Fork. BiOp at 4.2-6. The McKenzie subbasin contains two Project dams: Cougar Dam on the South Fork McKenzie River and Blue River Dam on Blue River. *Id.* at 4.3-5. The North and South Santiam subbasins each contain two Project dams: Detroit and Big Cliff in the North Santiam and Green Peter and Foster in the South Santiam. *Id.* at 4.5-6, 4.6-6.

The Willamette Project dams have many adverse effects on anadromous fish. *See* Third Schroeder Decl. ¶¶ 30-31, 38-42; Second Declaration of Richard Domingue ¶¶ 6-24 (filed herewith); Second Declaration of John Johnson ¶¶ 6-23 (filed herewith). The greatest impact is that they block access to historic spawning habitat upstream of the dams. BiOp at 4.1-7. Dams block approximately 70-90% of UWR Chinook spawning habitat in the Middle Fork, North Santiam and South Santiam subbasins and 33% of UWR steelhead spawning habitat in the North and South Santiam subbasins. Third Schroeder Decl. ¶¶ 24, 26, 29.

The dams alter river flows by storing water in large reservoirs for flood control and then

releasing it gradually later in the year, changing the natural river level and eliminating peak flows needed for channel complexity and fish habitat. BiOp at 4.1-8. Dam operations change downstream water temperatures too, generally causing colder than normal temperatures in spring and early summer and warmer than normal temperatures in late summer and fall, impairing salmonid migration, spawning, and egg incubation. *Id.* at 4.1-8, 4.1-9. Releases of water over or through the dams also can cause excess levels of dissolved gas in downstream water, which can adversely affect fish. *Id.* at 4.1-11. Dams prevent the downstream transport of fish habitat features such as large woody debris and sediment. *Id.* at 4.1-3. Finally, hatchery fish meant to mitigate for the dams' effects degrade the genetic integrity of wild salmon and steelhead. *Id.*

In addition to storing water for flood control, many of the Project dams produce power by running water through turbines. *Id.* at 2-20. The taller storage dams—Lookout Point, Detroit, and Green Peter—produce power during peak demand times and thus have large daily fluctuations in downstream water flows. *Id.* These fluctuations are moderated by the shorter downstream "re-regulating" dams—Dexter, Big Cliff, and Foster—which produce a constant but small amount of power. *Id.* Hills Creek and Cougar dams are tall and produce power but do not have downstream re-regulating dams. *Id.* The Corps regulates water flow by controlling how much water goes through the turbines, through regulating outlets in the dams, or spills over the top of the dams based on water management plans and hydrologic conditions. *Id.* at 2-12.

In 1999, when UWR Chinook salmon and steelhead were listed as threatened under the ESA, federal agencies began the ESA consultation process to assess the effects of the Willamette Project on the species. *Id.* at 1-4. The action agencies for the consultation were the Corps; Bonneville Power Administration, which markets the power produced at the Project dams; and the U.S. Bureau of Reclamation, which sells some of the storage water for irrigation. *Id.* at 1-3.

The consultation dragged on for years as these agencies and NMFS went back and forth about actions to improve conditions for the fish, and NMFS finally issued a biological opinion in 2008 ("2008 BiOp"). *Id.* at 1-8. In the 2008 BiOp, NMFS described the effects from continued operation and maintenance of the Project dams, stating that restricting access to historical spawning and rearing habitat above the dams was one of the primary problems in each subbasin, and degraded water quality below the dams was another key problem in the Middle Fork Willamette, South Santiam, and North Santiam subbasins. *Id.* at 5.2-5, 5.3-5, 5.5-5, 5.6-5.

The BiOp's discussion of the Middle Fork UWR Chinook population reflected a particularly dire outlook, stating that the population was already at very low levels and would remain at a very high risk of extinction under the current operations. *Id.* at 5.2-5 to 5.2-6, 5.2-29 to 5.2-31. NMFS noted that the Corps had not proposed actions to improve fish passage or decrease fall water temperatures below the dams, two of the biggest problems in that subbasin. *Id.* at 5.2-6, 5.2-16 to 5.2-17. The lack of access to historical spawning habitat above the dams and degraded spawning habitat below the dams largely due to high water temperatures would continue to restrict the natural production of UWR Chinook salmon, preventing improvement in abundance, productivity, spatial distribution, and diversity of this population and keeping it at very high risk of extinction. *Id.* at 5.2-29 to 5.2-31. NMFS concluded that "[s]ignificant improvements to the status of the Middle Fork spring Chinook population are necessary in order to improve the viability of the [species] as a whole," and "[r]e-establishing natural production in historical habitats above Project dams is of critical importance." *Id.* at 5.2-31.

The BiOp contained similar discussions for the other subbasins. For the McKenzie Chinook population, the BiOp concluded that access to historical habitat blocked by Cougar Dam "is of critical importance" but the Corps had proposed no definitive actions to improve fish

passage. *Id.* at 5.3-6 to 5.3-7, 5.3-26. Likewise, NMFS identified problems for the South Santiam and North Santiam Chinook and steelhead populations, noting in particular the lack of access to historical habitat above the dams and altered water temperatures and high dissolved gas levels below the dams, which would continue to occur because the Corps' proposed actions were essentially "status quo" operations. *Id.* at 5.5-9, 5.5-16, 5.5-27, 5.6-11, 5.6-19, 5.6-29 to 5.6-30. In summarizing the effects of Project operations on the two species, the BiOp again focused on the need for improvement to upstream and downstream fish passage at dams in all four key subbasins, water temperature control measures at dams in the Middle Fork Willamette, South Santiam, and North Santiam subbasins, and measures to reduce dissolved gas levels in the North Santiam subbasin. *Id.* at 7-3, 7-6 to 7-9, 7-13 to 7-15.

Based on this effects analysis, NMFS concluded in the BiOp that the Corps' continued operation and maintenance of the Willamette Project was likely to jeopardize the continued existence of UWR Chinook salmon and UWR steelhead and destroy or adversely modify their designated critical habitat. *Id.* at 8-4, 8-5. For UWR Chinook, it stated that the species was already at high risk of extinction due to low numbers of natural-origin spawners and negative productivity trends. *Id.* at 8-3. Many of the significant adverse effects of the Project that contributed to the species' already high risk of extinction would continue due to lack of needed measures, "including effective passage, or adequate temperature control." *Id.* at 8-4. For UWR steelhead, NMFS stated that two of the four populations occupy watersheds where habitat has been significantly degraded by Willamette Project operations, and continued operations would prevent access to important spawning and rearing areas and impair water quantity and quality. *Id.* at 8-4 to 8-5. Again, it stated that the Corps' proposed action did not provide needed measures, "including effective passage, or adequate temperature control." *Id.* at 8-5.

The 2008 BiOp then set forth a Reasonable and Prudent Alternative ("RPA") action that would allow continued operation of the Willamette Project in a way that would avoid jeopardy to the species and adverse modification of their critical habitat. *Id.* at Ch. 9. The RPA added mitigation measures for fish passage past dams, water quality (primarily water temperature and dissolved gas levels), water flows, irrigation contracts, habitat, and hatcheries, as well as requirements for research and monitoring. *Id.* at 9-5. The BiOp noted that the action agencies have legal authority to carry out the RPA measures because the statutes authorizing the Project included fish and wildlife protection as one of the Project purposes. *Id.* It also stated that avoidance of jeopardy and adverse modification of critical habitat is based on *successful completion of the RPA measures*. *Id.* The RPA included deadlines for many measures "to assure timely progress toward implementing critical on-the-ground actions," with some that "must be completed" in the short term and others in later years of the BiOp term. *Id.* at 9-6.

Fish passage was a critical component of the RPA because "lack of passage is one of the single most significant adverse effects on both the fish and their habitat . . . . Specific passage measures are necessary to address the effects of the Project. Therefore, NMFS includes specific passage measures to be completed and operational by set deadlines." *Id.* at 9-33. With regard to moving adult fish above the dams, the RPA required the Corps to upgrade fish collection facilities to improve survival of adult fish during the trap and haul process, with the North Santiam, Foster, Dexter and Fall Creek facilities upgraded by March 2013, 2014, 2015, and 2016 respectively. *Id.* at 9-39 to 9-40. This measure was an "essential first step" to improve upstream migration by reducing stress and injury to adult fish during the collection process. *Id.* at 9-40.

For downstream juvenile migration, the RPA required the following:

- Conduct operational measures for downstream juvenile fish passage through all Project reservoirs and dams in the four key subbasins, with implementation to

begin by May 2011.

- Complete the Willamette Configuration Operation Plan ("COP") by September 2012 to evaluate additional potential actions for fish passage.
- Construct a fish passage facility at Cougar Dam by December 2014 with operations to begin by 2015.
- Construct a fish passage facility at Lookout Point Dam by December 2021 with operations to begin by March 2022.
- Construct a fish passage facility at Detroit Dam by December 2023 with operations to begin by March 2024.

Id. at 9-40, 9-42, 9-48 to 9-58. This RPA component was a high priority meant to "ensure" that downstream passage would happen at three dams in the next fifteen years because "lack of passage is the most significant limiting factor to the viability" of UWR Chinook and steelhead populations. *Id.* at 9-52; *see also id.* at 9-53, 9-55, 9-56 (noting importance of fish passage past Cougar, Lookout Point and Detroit dams). Notably, if the COP determined that the required fish passage measures were not feasible, the RPA required the Corps to identify and implement other actions for passage within the same timelines *or reinitiate ESA consultation*. *Id.* at 9-59.

Another key component of the RPA addressed water quality, particularly water temperature and total dissolved gas. *Id.* at 9-60 to 9-68. The RPA required:

- Interim operations to improve water temperature and total dissolved gas ("TDG") at Detroit and Big Cliff dams beginning in 2009.
- Interim operations to improve water temperatures and TDG at Project dams in the South Santiam and Middle Fork subbasins beginning April 2010.
- Complex interim operations for temperature and TDG control at dams in the North Santiam, South Santiam, and Middle Fork subbasins beginning May 2011.
- Construction of a water temperature control facility by December 2018, with first priority being Detroit Dam.
- Protection of water quality during emergency and unusual events.

Id. at 9-61 to 9-67. The BiOp stated that water quality problems were one of the major limiting factors in habitat below the dams, preventing proper functioning of critical habitat; and interim measures were necessary to "ensure" that the Corps took short term actions to address water quality as soon as possible. *Id.* at 9-61. NMFS noted that Lookout Point was a priority for operational changes because water temperatures in the fall cause extremely high Chinook egg mortality in the limited spawning habitat below Dexter Dam. *Id.* at 9-63. The BiOp also stated that the requirement for a temperature control facility at Detroit Dam provided needed "specificity and certainty" as to when construction would be completed and improved downstream temperature conditions and reduced TDG would be achieved. *Id.* at 9-65.

The BiOp concluded that full and timely implementation of the RPA was expected to improve abundance, productivity, spatial structure, and diversity of UWR Chinook salmon and steelhead by providing a package of measures to address the main negative effects of the Project—lack of effective passage to important habitat, degradation of remaining habitat, adverse flows and temperature, and hatchery actions. *Id.* at 9-90, 9-91. The BiOp noted that the Corps' proposed operation of the Project "mainly provided for further studies" of options to address fish passage and water temperature problems, whereas the RPA required the Corps to *implement* measures to address these problems over the next fifteen years, which would increase the viability and reduce the risk of extinction for both species. *Id.* at 9-91 to 9-92, 9-108 to 9-109. NMFS concluded that operation of the Willamette Project under the RPA would avoid jeopardizing the survival and recovery of the species and adversely modifying their critical habitat if the Corps fully implemented all RPA measures by the deadlines. *Id.* at 9-95 to 9-117.

The last section of the 2008 BiOp was the Incidental Take Statement, where NMFS explained that continued operation of the Willamette Project under the RPA would result in

"take" of UWR Chinook salmon and steelhead. *Id.* at 11-6. NMFS estimated the amount or extent of take it expected from implementation of the RPA and stated that, over time, "incidental take in the forms of adult and juvenile passage mortality and due to adverse water quality and quantity conditions is expected to decline." *Id.* To minimize harm to the species, the BiOp set forth terms and conditions the Corps must fulfill to be exempt from the take prohibition of the ESA. *Id.* at 11-40. The terms and conditions listed in the Incidental Take Statement represented "no more than minor changes" to Project operations "because they only provide[d] further elaboration on the more general measures in the [proposed action] and RPA." *Id.*

III. Continued Impacts Since the 2008 Willamette Project Biological Opinion.

Since the 2008 BiOp, significant harm to UWR Chinook and UWR steelhead has continued to occur from two of the biggest problems identified in the BiOp—poor fish passage past dams and harmful water quality below the dams. The extensive record in this case shows that, while the Corps has conducted studies and written countless reports, proposals, PowerPoint presentations, and other documents over the last eleven years, it has continued to drag its feet on actually implementing measures to address fish passage and water quality—either failing to complete them at all or delaying them well past their RPA deadlines.

A. Lack of Fish Passage

Poor fish passage at the dams remains a critical problem due to the Corps' lack of actions. As explained above, juvenile salmonids face many obstacles when trying to migrate downriver through reservoirs and past the dams, including difficulty navigating through large reservoirs with little water flow, high rates of predation and infection in reservoirs, difficulty finding turbines or regulating outlets to get through the dams, and mortality or injury sustained when going through turbines, regulating outlets, or over the spillway. Third Schroeder Decl. ¶¶

19-20, 28; Second Domingue Decl. ¶¶ 6, 21; Second Johnson Decl. ¶¶ 11-18.

The 2011 Recovery Plan for UWR salmon and steelhead reaffirmed the importance of fish passage at these dams, noting that improving downstream fish passage was one of the top two actions needed in the North Santiam, South Santiam, McKenzie and Middle Fork Willamette subbasins. USACE 765685, 765687, 765691, 765693 (Executive Summary). The Plan listed impaired downstream passage at the dams as the first key threat limiting viability of the populations in those four subbasins, and showed flood control/hydropower dams as the largest source of mortality for each. USACE 036592, 036600, 036613, 036618, 036654, 036657, 036663, 036666, 036671, 036673. The highest priority action items were those addressing the direct impacts of flood control/hydropower and dam/reservoir operations, with increased juvenile fish survival prioritized as needing *immediate* action. *Id.* at 036685, 036745-46. *See also* USACE 016213, 016233 (NMFS comments on draft recovery plan stating that "RPA actions remain the highest priorities" for recovering the species).

Memos by NMFS in 2013-2015 again expressed the importance of and urgent need for actions to improve passage. In 2013, NMFS was already concerned about the Corps' delays in implementing RPA measures and stated that the Corps needed to focus on the highest priority actions, particularly downstream fish passage. NMFS 3408-10; NMFS 3417-18; USACE 032470-71. In a 2014 memo, NMFS stated that "[r]ecovery in Willamette cannot be achieved without downstream fish passage in all 4 basins. This is essential to avoiding jeopardy. . . ." NMFS 3774. The memo concluded that "[t]he action agencies need to focus on doing their part by focusing on . . . providing passage." *Id.* at 3775. Similarly, a 2015 NMFS briefing paper included the following statements: "[t]he most important action to support survival and recovery is to provide passage" and "Corps/BPA focus needs to be on blocked passage because it is the

most significant limiting factor for survival and recovery of these populations, and is caused by their dams." Pl. Ex. 6 at 2, 3 (ECF No. 36-6)[4]; *see* also NMFS 3737-38; NMFS 3852-57; NMFS 3903-04; USACE 841136 (similar NMFS statements in 2014-2015).

The 2016 NMFS Status Review of UWR Chinook salmon and steelhead continued to list lack of access to historic spawning habitat as a significant threat impairing the viability of UWR salmon and steelhead in the four key subbasins. USACE 213868-71. Implementing effective passage programs and revision of reservoir operations that would promote access to historical spawning and rearing areas above the dams was still one of the top recommended *future* actions. *Id.* at 213873, 213901. The only downstream passage measure listed as implemented was the Fall Creek winter drawdown operation that began in 2011. *Id.* at 213881; *see also* USACE 006584 (stating in March 2016 that "lack of passage is the effect causing the most harm" and passage measures "are the most important and necessary to avoid jeopardy").

A review of the Corps' actions since 2008 shows a pattern of the agency considering and planning a number of passage measures, only to raise a variety of excuses that ended or further delayed implementation. The result is that long-term passage structures required by the RPA are well behind schedule, and almost no operational measures are occurring to improve downstream passage in the interim.

1. Delays in Long-Term Passage Structures

Downstream passage structures at Cougar and Detroit dams are years behind schedule and the Corps has abandoned any plans for Lookout Point. The delay began with the Corps missing the deadline to complete its assessment of options for long-term fish passage, finishing the COP three years later than required under the RPA. BiOp at 9-58; USACE 834521 (deadline

[4] Plaintiffs cite to a few documents that they submitted as exhibits to their Preliminary Injunction motion and were not found in the administrative record.

2012, completed 2015). The RPA deadline for construction of a downstream passage facility at Cougar Dam was 2014, but the Corps' estimated completion is now 2022. BiOp at 9-53; Def. Timeline Ex. 2 at 10 (ECF No. 81-2). Likewise, the RPA deadline for construction of a passage facility at Detroit Dam was 2023 but is now estimated as 2028. BiOp at 9-55; Def. Timeline Ex. 2 at 11. The Corps has entirely abandoned designing a downstream passage facility at Lookout Point Dam, and thus will clearly miss a construction deadline of 2021. BiOp at 9-54; USACE 834716 (stating in COP that Corps' only plan for Lookout Point was to continue to review the need for providing fish passage in the Middle Fork); USACE 335767 (will not even begin designing Lookout Point passage structure until after FY2023); *see also* Def. Timeline Ex. 2 at 10; Declaration of Kevin Brice ¶ 18 (ECF No. 67) (both stating that Corps will "check in" on the direction for Lookout Point in FY2019). Thus, the Corps will not fulfill NMFS's assumption in the RPA that all three facilities would be built by 2023. BiOp at 9-52.

As far back as 2013/2014, NMFS recognized the delays in these structures likely triggered the need to reinitiate consultation. *See* NMFS 3417-18; NMFS 3710-19; NMFS 3793-96; NMFS 3808-09; NMFS 3852-57. NMFS and other wildlife agencies criticized the Corps' plans for these passage projects outlined in the COP because they did not comply with the 2008 RPA or provide for recovery of the species. NMFS 2762-65; NMFS 3722-23; NMFS 6542-43; USACE 431672-87; USACE 431698-99.

Delays also have occurred with improvements to fish collection facilities needed to help adult upstream passage. BiOp at 9-39 to 9-40. Of the four facilities listed in the RPA, upgrades at the Fall Creek facility were two years late (deadline 2016, completed 2018), and the Dexter facility on the Middle Fork has yet to be improved despite the RPA deadline of 2014 for completion of construction. BiOp at 9-40; Def. Timeline Ex. 2 at 7. The Corps had made

significant progress by 2014 planning and designing the Dexter upgrade but then, like with Lookout Point downstream passage, abandoned that process. USACE 400385, 456445, 479538; Def. Timeline Ex. 2 at 7. Furthermore, even with the upgraded collection facilities, high pre-spawn mortality continues to occur with adults that are transported above the dams, which continues to limit production in historic spawning habitat. Third Schroeder Decl. ¶¶ 29-30, 44.

2. Inaction on Interim Operational Measures

As the agencies have acknowledged, the lack of progress on long-term passage facilities made the need for short-term operational measures even more critical, but the Corps has largely failed to implement those as well. USACE 030065-66; USACE 037247; USACE 108916.

The Corps has considered a variety of measures that would alter normal reservoir operations[5] to benefit downstream fish migration, such as deeper drawdowns of reservoirs to allow fish better access to regulating outlets rather than going through turbines (which is generally more harmful), altering the timing of drawdown and/or refill of the reservoir to better match the natural migration timing of the fish, delaying refill of the reservoirs to allow fish more time to access the regulating outlets, or increasing spill over the dams in spring to increase passage. USACE 455189, 455203-04, 455228-59. Drawing down reservoirs also decreases the amount of time it takes juvenile fish to migrate through them to the dam, reducing the likelihood of predation and infection. *See* Third Schroeder Decl. ¶ 20; Second Domingue Decl. ¶¶ 21, 26, 31. From the start, the Corps' evaluation of these measures looked not only at the benefits to the

[5] Under normal operations for flood control at the high-head dams, the Corps draws down the reservoir to a low level (called the minimum conservation pool) in the fall to provide space to capture high runoff from winter rain events, which is released once the flood threat has passed. USACE 455186-87. In spring, the Corps stores much of the inflow to fill the reservoir, and then keeps it full until drawdown the next fall. *Id.* Reservoirs are generally at minimum conservation pool in December and January, and at maximum level from May through August. *Id.*

fish but also at whether the operations would reduce power generation, recreation use, or irrigation and municipal water supply. USACE 455222-27, 455231-37, 455239-41, 455244-59, 455267; USACE 913276-79. NFMS objected to this cost-benefit analysis because "protecting ESA-listed species and their critical habitats, as prescribed by the RPA, is not subject to cost-benefit tests." USACE 034277.

The Corps determined that many of these operational measures were feasible and could benefit the fish, and in 2013 listed the highest priority actions as drawdowns of Cougar, Fall Creek, Detroit, and Hills Creek reservoirs for downstream passage. USACE 885685. However, the Corps has largely refused to implement these measures. The Corps' Brice Declaration filed with the preliminary injunction briefing lists the only measures the Corps has taken for downstream fish passage as the Foster fish weir, the Fall Creek deep drawdowns, and the portable floating fish collector at Cougar Dam. Brice Decl. ¶ 5. Yet, as Plaintiffs pointed out, the Foster fish weir and Cougar floating fish collector were both unsuccessful and are not currently in use. Third Schroeder Decl. Ex. A (the new Foster weir is not used due to "a high rate of injury and mortality to fish"); USACE 832528; NMFS 6543; Def. Timeline Ex. 2 at 8, 10. The Corps' timeline submitted to the Court notes only a couple other interim fish passage measures the Corps took in 2009-2012 at Detroit and Cougar dams. Def. Timeline Ex. 2 at 8. [6]

In fact, the only interim fish passage operation the Corps has regularly conducted is the deep drawdowns at Fall Creek Dam. *Id.* On Fall Creek, a tributary to the Middle Fork Willamette River, the Corps has implemented an annual deep drawdown since 2011 by drawing

[6] Plaintiffs note that the Corps was also woefully late in completing the initial Willamette Fish Operations Plan (WFOP), which was supposed to identify optimal operating criteria at each dam to minimize fish injury and mortality, including operational measures for fish passage and water quality. Def. Timeline Ex. 2 at 6 (RPA deadline 2008, completed 2014).

the reservoir down almost to the original river channel for a short period in the fall. USACE 848621. This has increased juvenile survival during downstream migration by allowing the fish to find the regulating outlets more easily and pass through them, and flushing predators out of the reservoir to reduce predation on young salmon. *Id.* at 848621-22. In 2016, ODFW recommended an additional deep drawdown in spring that coincides more closely with the natural migration timing of salmon, but the Corps refused. USACE 337883-84; USACE 300123.

The Corps has refused to conduct similar drawdowns, or take any other interim measures, to assist downstream migration in the Middle Fork Willamette. USACE 300123 ("No specific operations are performed at Dexter, Lookout Point, or Hills Creek to support juvenile downstream fish passage."). For years, NMFS has highlighted the need for downstream passage measures at Lookout Point Dam. Pl. Ex. 9 (ECF No. 36-9); USACE 914708-09; USACE 029420; USACE 029806-08. The Corps moved forward with plans for downstream passage operations at Lookout Point for at least two years, issuing a draft environmental assessment ("EA") in June 2017 evaluating several operational alternatives, including a fall deep drawdown. USACE 835954-57; USACE 276237, 276252-55. The draft EA recognized that numbers of wild UWR Chinook continue to decline, and the Middle Fork Chinook population is still at very high risk of extinction. USACE 276266. The Corps planned a deep drawdown for fall 2017 but, to NMFS's dismay, abruptly changed course and refused to implement it because the Corps suddenly claimed it did not have authority to forego power production for a month to improve fish migration. USACE 202508-09; USACE 024919; Pl. Ex. 22 (ECF No. 36-22); Pl. Ex. 51 (ECF No. 75-3); USACE 023907 (NMFS stating that foregoing drawdown "cut off a potential life support system for Spring Chinook"). The Corps has not committed to implement any operational measures at Lookout Point since then. Def. Timeline Ex. 2 at 8; USACE 300123.

Similarly, in the McKenzie subbasin, the Corps has abandoned implementation of downstream passage operational measures at Cougar Dam. Def. Timeline Ex. 2 at 8; USACE 332950; USACE 300098 (2017 and 2018 WFOPs stating "[t]he USACE does not currently operate Cougar [D]am specifically for juvenile fish passage."). The Corps tested a deep drawdown operation in December 2012 that lowered the level of the reservoir to the regulating outlets, and survival during passage improved under that operation. USACE 460749; USACE 861262, 861272 (December deep drawdown improved survival from 46% to 74%). The Corps considered conducting further deep drawdown operations at Cougar Dam, but failed to implement them. USACE 871906-07; USACE 427105; USACE 449538; USACE 828760; USACE 832526; USACE 332950; USACE 300098. The lack of actions to improve downstream passage at Cougar remains concerning:

> Recent population viability analysis (PVA) conducted by ODFW (Falcy, 2018, unpublished) indicate an unacceptably high risk of extinction of McKenzie spring Chinook. Furthermore, the Clackamas and Sandy populations of spring Chinook do not exhibit such high levels of risk. These results highlight the urgency of achieving successful fish passage at Cougar Dam. Concrete actions to improve survival are needed to ameliorate current and emerging stressors, including effects of copepods and climate change, and increase the likelihood of Chinook persistence.

USACE 023758 (2018 memo for Managers meeting between agencies and stakeholders).

In the North Santiam subbasin, the agencies knew in 2010 that downstream survival through regulating outlets was better than through turbines or spillways, but fish will not find the regulating outlets unless the reservoir is drawn down to their level. USACE 016090. Such drawdowns at Detroit Dam to help downstream passage have been recommended and considered but the Corps failed to implement them. USACE 838770; USACE 881508; USACE 872941; USACE 914709; USACE 067654; USACE 108981-84; USACE 300057; USACE 332910.

Finally, in the South Santiam subbasin, Green Peter Dam is the high-head dam that cuts

off access to a "large portion" of spawning habitat in the subbasin. USACE 202374. The Corps stopped transporting adult salmon and steelhead above the dam in 1988. *Id.* NMFS determined that accessing that habitat is important for both species, and the Corps must conduct studies on spawning and migration as a first step to that reintroduction. NMFS 6640-41; NMFS 6636-37; USACE 202373-75; USACE 026276. The Corps has refused to conduct those studies. *Id.*

In sum, the Corps has failed to implement short-term interim measures and is far behind schedule on long-term structures to improve downstream passage at all dams except Fall Creek.

B. Poor Water Quality and Flows Below Dams

The Corps' 2017 Water Quality Report reiterated the BiOp's conclusion that water temperature below Project dams is one of the primary limiting factors preventing recovery of UWR Chinook and steelhead. USACE 041021-22; BiOp at 9-60, 9-61. As the Corps admitted, "construction and operation of the Corps Willamette dams have altered natural flow and water temperature regimes, disrupting the natural cues for migration, spawning, and emergence timing" for UWR salmon and steelhead. USACE 455190. Under normal Project operations, the Corps runs water through the turbines to generate power. *Id.* When the reservoir is full in summer, water released through the turbines is from deep in the reservoir and thus colder than natural flows. *Id.* at 455190-91. In fall and winter, when the reservoir levels drop and warm water closer to the surface of the reservoir is released, temperatures downstream become warmer than normal. *Id.* These changes affect the migration timing of adult salmon and steelhead, spawning success below the dams, and the timing of fry emerging from eggs. *Id.* at 455192-96; USACE 041021-22; USACE 018973-76 (illustrating temperature problems). Additionally, water falling from the dam to the river below absorbs gases from the air, creating high TDG levels in water downstream of the dams, which is also hazardous for adult and juvenile fish. USACE 041022;

USACE 026742-43. *See also* Third Schroeder Decl. ¶¶ 21, 25, 47; Second Domingue Decl. ¶¶ 14-20 (discussing water quality impacts).

The Corps can alter downstream water temperature and TDG by adjusting how water gets through a dam, i.e. via surface spill near the top of the dam, through turbines, or through regulating outlets, which are often the lowest outlets and release the coldest water. USACE 455192; USACE 026739. The Corps considered such operational measures in its early assessment of RPA implementation. USACE 455228-31, 455237-38, 455241-42. The agency has taken only a few actions to address water quality, however, allowing temperatures and TDG levels to continue harming fish and degrading habitat below many Project dams.

Water temperatures below dams in the Middle Fork Willamette subbasin are very detrimental to UWR Chinook, with temperatures in fall severely impairing spawning and egg incubation and contributing to high adult pre-spawn mortality. USACE 102662-64; USACE 101748-51, 101758-60, 101763-64, 101790; USACE 041078-82, 041090-92, 041096-97, 041124; Third Schroeder Decl. ¶ 29; Second Domingue Decl. ¶ 39. Yet the Corps conducts no temperature control operations at Lookout Point or Hills Creek dams, claiming they do not help. USACE 300124; USACE 101794; USACE 041127.

Water temperature also remains a problem in the North Santiam and McKenzie Rivers below the dams even with the Corps' temperature control measures. The Corps built a water temperature control structure at Cougar Dam in 2005 that blends water from different levels of the reservoir to manage downstream temperatures. USACE 300095. The Corps also implements some operational measures at Detroit Dam to help with downstream temperatures. *Id.* at 300058-60. Yet water temperatures below these dams continue to exceed temperature targets in fall during salmon spawning and incubation. USACE 101686, 101706-07, 101731-33, 101790;

USACE 041015, 041036-38, 041063, 041123; Second Domingue Decl ¶ 30 (discussing water temperatures in North Santiam). The long-term structural facility at Detroit Dam to improve downstream temperature is still in the planning phase, with an estimated construction date of 2024—six years after the 2018 deadline in the RPA. Def. Timeline Ex. 2 at 12. And on the South Santiam, the Corps conducts no temperature control measures at Green Peter Dam even though temperatures below that dam are frequently outside targets. USACE 101718-21, 101790-91; USACE 041049-52, 041124; USACE 300079.

High TDG also remains an issue in the North Santiam and South Santiam Rivers, with recurring problems in 2015-2018 that led to high levels of TDG below Big Cliff and Foster dams, creating adverse effects to fish. USACE 023372-84; USACE 023385-94; USACE 023397; USACE 026316-18; USACE 041041-43, 041058; USACE 101710-13, 101726-27; USACE 832525; USACE 022813.

Aside from the water quality problems of normal dam operations, unplanned events—such as power outages or mechanical failures—and routine maintenance of the dams cause additional water quality issues. The RPA required the Corps to develop protocols to deal with emergency events and schedules for maintenance to minimize impacts to fish. BiOp at 9-36 to 9-38, 9-66 to 9-67. The Fish Operations Plan contains maintenance target periods for each of the dams and fish facilities, and protocols for emergency situations. *See e.g.*, USACE 300060-69. The Corps frequently fails to abide by these schedules and protocols, often causing adverse impacts to salmon and steelhead, particularly excessive TDG. USACE 048814-15; USACE 049571-72; USACE 101712; USACE 296746-47; USACE 256364; Pl. Ex. 39 (ECF No. 36-39).

Finally, alteration of water flows has threatened to scour or desiccate redds below dams due to rapid changes in flow levels that violated ramping rates, particularly in the North and

South Santiam. USACE 281366–67; USACE 317672–74; USACE 317846–48; USACE 331879–80; USACE 067641; USACE 034664; USACE 073081–073085; USACE 073757-71; USACE 494844–45 (all discussing flow problems in North or South Santiam 2010-2018 that threatened the fish with harm due to Corps' alteration of flows). Like with fish passage, the operation and maintenance of the Project dams continues to cause significant harm to UWR Chinook salmon and steelhead by degrading water quality and quantity below the dams.

ARGUMENT

I. ESA Standards

Federal agencies' primary duty under the ESA is to ensure that their actions are not likely to jeopardize the continued existence of threatened or endangered species or adversely modify the species' critical habitat. 16 U.S.C. § 1536(a)(2). Jeopardize means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of the species in the wild by reducing the reproduction, numbers, or distribution of the species. 50 C.F.R. § 402.02. The ESA also prohibits "take" of threatened and endangered species, where "take" includes harming, wounding, killing, or harassing a listed species, or causing significant habitat degradation that kills or injures wildlife by significantly impairing essential behaviors such as breeding, feeding, and sheltering. 16 U.S.C. §§ 1538, 1532(19); 50 C.F.R. §§ 17.3, 223.203.

To ensure compliance with these substantive duties, the ESA requires a federal agency to consult with NMFS over any action that may affect a threatened or endangered marine species, such as salmon or steelhead. 16 U.S.C. § 1536(a)(2). For an action that is likely to adversely affect a listed species or its critical habitat, NMFS prepares a biological opinion to determine if the adverse effects are likely to jeopardize the continued existence of the species or adversely

modify its critical habitat. 50 C.F.R. § 402.14(g)(4). If NMFS determines that the action will cause such a result, it shall propose one or more reasonable and prudent alternative actions that could go forward without causing that result. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)(5), (h)(3). Also, if the action is likely to "take" a threatened or endangered species, NMFS can authorize that take if it is incidental to an otherwise lawful activity and will not jeopardize the species. 16 U.S.C. § 1536(b)(4). Such an authorization occurs through an incidental take statement within a biological opinion. *Id.*

Once consultation is completed, reinitiation of consultation must occur if the amount or extent of taking specified in the incidental take statement is exceeded, new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. 50 C.F.R. § 402.16.[7]

II. Defendants' Delayed Reinitiation of Consultation Requires a Remedy.

The first claim in Plaintiffs' Complaint concerned the agencies' failure to reinitiate consultation over the Willamette Project when changed circumstances and new information triggered the need to reinitiate under ESA regulation 50 C.F.R. § 402.16; *see* Complaint ¶¶ 82-84, 91-95. Even though the agencies have now formally reinitiated consultation, Plaintiffs' claim is not moot because the Court can still grant effective relief that would help alleviate harm to the species while the agencies complete the lengthy consultation process. *See Wash. Toxics*

[7] Plaintiffs submitted five declarations establishing their standing to bring their claims. Declarations of Thomas Derry, Jeff Dose, Conrad Gowell, David Thomas, and Marlies Wierenga (ECF Nos. 40–44); *see Friends of the Earth, Inc. v. Laidlaw Envtl. Services (TOC), Inc.*, 528 U.S. 167, 183 (2000). Plaintiffs also provided the Corps with 60-days' notice of these ESA violations prior to suing. USACE 295325–295342 (notice letter); USACE 021144–45.

Coal. v. EPA, 413 F.3d 1024, 1034 (9th Cir. 2005) ("[A] court can enjoin agency action pending *completion* of [consultation] requirements." (emphasis added)), *abrogated on other grounds as recognized by Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1092 (9th Cir. 2015). Because such effective relief is available, Plaintiffs' failure-to-reinitiate-consultation claim is not moot. *Neighbors of Cuddy Mtn. v. Alexander,* 303 F.3d 1059, 1065 (9th Cir. 2002).

In *Hoopa Valley Tribe v. National Marine Fisheries Service*, a case very similar to this one, the court held it could order injunctive relief to remedy a failure to reinitiate consultation even after the agencies had started a new consultation because their two-year delay in reinitiating caused increased harm to the species and was a "substantial procedural violation" of the ESA. 230 F. Supp. 3d 1106, 1131-35, 1146 (N.D. Cal. 2017) (citing *Wash. Toxics*, 413 F.3d at 1034; *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1056-57 (9th Cir. 1994)). Impacts to the species during the unlawful delay were greater than what the Biological Opinion had considered, which undermined the core conclusions of NMFS's no-jeopardy determination, and the plaintiffs' requested relief could remedy that additional harm until consultation was completed. *Id.* The court distinguished the situation from cases in which the only requested relief was a new consultation process. *Id*. at 1131-32. *See also Envtl. Defense Ctr. v. Bureau of Ocean Energy Mgmt.,* 2018 WL 5919096, at *21-23, No. 16-cv-8418 (C.D. Cal. Nov. 9, 2018) (failure to consult claim not moot where consultation had begun and injunction was appropriate remedy to protect species pending completion of consultation).

The situation here is similar to *Hoopa Valley* because: (1) the Corps and NMFS should have reinitiated consultation years ago when it was clear that many of the requirements to improve fish passage and water quality had not occurred or would not occur under the timelines prescribed in the 2008 BiOp RPA, and (2) Plaintiffs are requesting that the Court order

protective measures be put in place pending the completion of consultation. The BiOp stated that "[s]pecific passage measures are necessary to address the effects of the Project. Therefore, NMFS includes specific passage measures to be completed and operational by set deadlines." BiOp at 9-33. Likewise, the BiOp discussed the importance of quickly implementing interim water quality measures, and building a temperature control facility by 2018. *Id.* at 9-61, 9-65. NMFS's conclusion that the RPA would avoid jeopardy to the species and adverse modification of critical habitat was "based on the benefits attributed to successful completion" of the RPA measures. *Id.* at 9-5. *See also id.* at 9-91, 9-105 to 9-107, 9-108, 9-114 to 9-116 (relying on timely completion of RPA measures, particularly for fish passage, to conclude species' status will improve and Project operations will not cause jeopardy). The BiOp specifically stated that if the Corps determined it was infeasible to complete major elements of the RPA—such as the downstream passage structures—and did not identify other alternatives that could be implemented within the same timelines, reinitiation of consultation would be necessary. *Id.* at 9-58, 9-59; *see also* USACE 534703 (2010 NMFS memo stating that if Corps determines a key RPA action is "No Go" and has no alternative action, it must reinitiate consultation).

The agencies knew within five years after the BiOp issued the Corps was going to miss significant deadlines. The RPA directed the Corps to complete a Fish Operations Plan by 2008, begin carrying out interim operational measures to improve water quality and downstream passage by 2010/2011, complete its COP by 2012, construct the Dexter adult fish facility and the Cougar downstream passage facility by 2014, construct the Detroit temperature control structure by 2018, and construct the Lookout Point downstream passage structure by 2021. BiOp at 9-36, 9-40, 9-42, 9-53, 9-54, 9-55, 9-58, 9-62 to 9-63, 9-65. By 2013 it was apparent that the Corps would miss most of these deadlines: it had failed to complete both the Fish Operations Plan and

the COP, failed to implement operational measures to improve downstream passage and water quality at most of the dams, and would not even begin construction of the Dexter or Cougar facilities by 2014. *See* Def. Timeline Ex. 2 at pp. 6-12. NMFS began expressing concerns that year about the Corps missing key RPA deadlines, particularly with regard to the Cougar downstream passage facility. NMFS 3408-09; NMFS 3417-18; NMFS 3795.

NMFS's concerns mounted in 2014-2015, when it became clear that not only were the Cougar downstream passage facility and Dexter adult collection facility going to be significantly delayed, but the Detroit temperature tower would also be delayed and the Corps was not even planning for the Lookout Point passage facility. NMFS 3711-19; NMFS 3767-68; NMFS 3808-09; NMFS 3852-57; NMFS 3722-23; USACE 841136-44; *see also* USACE 834716 (no planning in COP for passage facility at Lookout Point). NMFS's internal communications discussed reinitiation of consultation due to the Corps' delays of these critical RPA measures, which were causing more harm to the fish than what the BiOp had expected. NMFS 3793-96; NMFS 3809; NMFS 3712-19. At that point, it was clear that the effects of the action were greater, and would continue to be greater, than what the BiOp had considered, triggering the need to reinitiate.

Yet, the agencies did not reinitiate consultation until April 2018. NMFS 7139. Due to the greater than expected harm to the fish from the Corps' continuing operation of the Willamette Project without the necessary RPA actions, delaying reinitiation until 2018 was a substantial procedural violation of the ESA that warrants injunctive relief. *See Hoopa Valley*, 230 F. Supp. 3d at 1134-35.

III. The Corps' Continued Operation of the Willamette Project is Violating ESA Section 7.

The Corps' essential duty under the ESA is to ensure its operation of the Willamette Project does not jeopardize UWR Chinook salmon and steelhead, but it has failed to fulfill that

duty for years by operating the Project in ways that continue to severely impair the survival and recovery of both species. As this Court noted in its ruling on Plaintiffs' preliminary injunction motion, the 2008 BiOp RPA set forth measures necessary to avoid jeopardizing UWR salmon and steelhead, the Corps has failed to timely implement many of the key measures, and this failure has contributed to the species' continued decline. Opinion and Order at pp. 19-23 (ECF No. 84). These elements establish that the Corps' ongoing operation of the Willamette Project is jeopardizing the continued existence of these species, in violation of ESA Section 7.[8]

A look at the status of these species shows their situation is dire, with very low abundance and further declines in the last ten years. Third Schroeder Decl. ¶¶ 32-36, 48; USACE 049439; USACE 765136. The declining trend of both species is evidence that the Corps' operations are not only impeding progress toward recovery but impairing the species' very survival. Third Schroeder Decl. ¶ 48. When a species remains at low abundance, impeding its progress toward recovery reduces its likelihood of survival because "the longer a species remains at low population levels, the greater the probability of extinction from chance events, inbreeding depression, or additional environmental disturbance." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 184 F. Supp. 3d 861, 891 (D. Or. 2016) (citing ESA Consultation Handbook at 4-21); *see also Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 526-29 (9th Cir. 2010) (action that contributes to the decline of a species already at low abundance impairs its survival). Maintaining these species at such low numbers does not comport with the ESA's requirement to achieve their recovery. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524

[8] Although the Corps and NMFS have reinitiated consultation, the Corps must still ensure that its ongoing operations do not jeopardize the species during the consultation process. *Wash. Toxics Coal.*, 413 F.3d at 1034-35; *Def. of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1095-97 (E.D. Wash. 2006); *see also Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 184 F. Supp. 3d 861, 950 (D. Or. 2016) (retaining jurisdiction during consultation process to ensure Defendants developed mitigation measures to avoid jeopardy).

F.3d 917, 931-32 (9th Cir. 2008); *Wild Fish Conservancy*, 628 F.3d at 527. As NMFS stated in 2016, "[s]ignificant population increases are necessary to reduce extinction risk to avoid jeopardy," USACE 006584, yet these species continue to decline.

UWR salmon and steelhead have no chance of recovery and are unlikely to even survive if significant changes to Willamette Project operations do not occur. Third Schroeder Decl. ¶¶ 41, 48. The Corps has authority to make such changes to benefit threatened fish species. The Flood Control Acts that authorized these dams imposed broad goals, which included fish and wildlife conservation, but did not dictate what specific actions the Corps must take to fulfill those broad goals. *NWF v. NMFS*, 524 F.3d at 928-29; BiOp at 9-5. The subsequent Fish and Wildlife Coordination Act and Northwest Power Act emphasized the importance of fish and wildlife conservation when operating dams in the Columbia River basin. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. 01-cv-640, 2005 WL 1278878, at *9 (D. Or. May 26, 2005), *aff'd*, 524 F.3d at 917. In light of these authorities, the Corps has substantial management discretion over its dams and must operate them in compliance with the ESA's no-jeopardy mandate regardless of the expense or burden. *Id.* at *9-10; *NWF v. NMFS*, 524 F.3d at 929. For instance, the Corps can take actions to benefit fish even at the expense of power production. *See Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. 01-cv-640, 2017 WL 1829588, at *6 (D. Or. April 3, 2017), *aff'd*, 886 F.3d 803 (9th Cir. 2018).

The operation of the Willamette Project has been killing UWR salmon and steelhead and degrading their critical habitat for years, and the Corps has failed to make changes that NMFS determined were necessary to ensure the species' survival and recovery. Where baseline conditions already impair the survival and recovery of a species, and cause severe degradation of critical habitat, ongoing actions that cause additional harm and degradation violate ESA Section

7. *NWF v. NMFS*, 524 F.3d at 929-30, 935; *NWF v. NMFS*, 184 F. Supp. 3d at 930. That is precisely the situation here, where the Corps' ongoing operations continue to impede passage to and from important habitat upstream of the dams and degrade water quality below the dams—impacts that have been causing jeopardy for years.

Specifically, NMFS stated in the 2008 RPA that "lack of passage is one of the single most significant adverse effects on both the fish and their habitat . . . . *Specific passage measures are necessary to address the effects of the Project."* BiOp at 9-33 (emphasis added); *see also id.* at 9-52 ("lack of passage is the most significant limiting factor to the viability of the affected populations of UWR Chinook and UWR steelhead"). The long-term passage structures at Cougar, Detroit, and Lookout Point dams required by the RPA were meant to *ensure* that downstream passage would happen at three dams by 2023. *Id.* at 9-52. Similarly, the BiOp stated that water quality problems were one of the "major limiting factors" in habitat below the dams and "prevent proper functioning of critical habitat." *Id.* at 9-61. Interim operational changes for water temperature were required quickly because "some of the UWR Chinook salmon populations are presently at such low abundance levels and at high risk of extinction, interim measures are needed as soon as possible to avoid further declines in abundance." *Id.* Lookout Point Dam in particular was a priority for operational changes due to high water temperatures downriver in the fall and the importance of the Middle Fork Chinook population to the species as a whole. *Id.* at 4.2-9, 5.2-31, 9-63.

When it became clear the Corps was not going to fulfill these requirements by their deadlines, NMFS again emphasized that full and timely implementation of the RPA, especially measures to improve passage at dams, was needed to avoid jeopardy. NMFS 3774-75; NMFS 3417-18; NMFS 3808-09; NMFS 3903-04; NMFS 3852-55; NMFS 3738; USACE 006584;

USACE 841136; Pl. Ex. 6 at 2-3. For example, in a 2014 memo, NMFS stated that "[r]ecovery in Willamette cannot be achieved without downstream fish passage in all 4 basins. This is essential to avoiding jeopardy. . ." NMFS 3774. Similarly, a 2015 NMFS briefing paper included the following statements: "[t]he most important action to support survival and recovery is to provide passage" and "Corps/BPA focus needs to be on blocked passage because it is the most significant limiting factor for survival and recovery of these populations, and is caused by their dams." Pl. Ex. 6 at 2, 3.

In a 2016 presentation, NMFS again stated that "[l]ack of passage is the effect causing the most harm," and the three downstream passage structures and Detroit temperature control structure "are the most important and necessary to avoid jeopardy due to harm caused by blocked passage" and "elevated temperature downstream." USACE 006584. *See also* USACE 213870-71 (2016 status review listing continued lack of access to historic spawning habitat as a key threat impairing the viability of Upper Willamette River salmon and steelhead); USACE 101692 (2016 water quality report identifying water temperatures below Project dams as one of the primary limiting factors preventing recovery of Upper Willamette River Chinook and steelhead). Short-term interim measures addressing passage and water quality became even more important to achieve improvements for the species as the Corps pushed off the longer-term structures. USACE 030065; USACE 037247; USACE 108916.

The Corps, however, has failed to implement interim RPA measures for downstream passage and water quality at many of the dams and is far behind schedule for long-term measures. *See supra* pp. 12-23; *see also* Pl. Timeline (ECF No. 82-1). Notably, no fish passage or water quality measures are occurring at the dams on the Middle Fork (Dexter, Lookout Point, Hills Creek). USACE 300122-24; USACE 332974-76; USACE 101794; USACE 041127. In

fact, the Corps completely abandoned planning for a downstream passage structure at Lookout Point Dam and upgrading the Dexter adult fish collection facility, and even reversed course on implementing a deep drawdown at Lookout Point to assist downstream passage. *See supra* pp. 15-16, 18-19. In essence, the Corps decided to ignore the Middle Fork Chinook population despite NMFS repeatedly expressing the need to achieve fish passage in all four subbasins to avoid jeopardy. USACE 845860; NMFS 3774; NMFS 3738; NMFS 3852-56; NMFS 3903-04; NMFS 6542; USACE 841136. The Middle Fork population, which is critical to recovery of the species, was already at very high risk of extinction in 2008 and its numbers remain perilously low. BiOp at 4.2-9; NMFS 3852; USACE 024150; Third Schroeder Decl. ¶¶ 34, 48.

No downstream passage actions are occurring at Cougar dam even though the McKenzie Chinook population is a "core" and "genetic legacy" population. USACE 300098; NMFS 3903. A 2018 memo noted the "urgency of achieving successful fish passage at Cougar Dam," but the estimated construction of a downstream passage structure is now 2022—eight years late—and the Corps has rejected operational measures such as deep drawdowns to improve passage in the meantime. USACE 023758; Def. Timeline Ex. 2 at 8, 10; *supra* p. 19. Due to a severe decline in abundance over the last fifteen years, the McKenzie Chinook population is currently at an "unacceptably high risk of extinction." USACE 023758; Third Schroeder Decl. ¶¶ 33, 48.

In the North Santiam, the Corps is five years behind schedule on a downstream passage structure and six years behind on a temperature control structure at Detroit Dam, and has failed to implement operational measures such as drawdowns to improve passage. Def. Timeline Ex. 2 at 8, 11, 12; s*upra* pp. 15, 20. Likewise, it has refused to conduct studies ordered by NMFS to move toward fish passage at Green Peter Dam on the South Santiam. *Supra* p. 20. Water temperatures and high dissolved gas are still frequent problems below dams in both subbasins,

with little action by the Corps to address those problems. *Supra* p. 22. Outages, maintenance activities, and flow adjustments also continue to harm the species, particularly in these subbasins. *Supra* pp. 22-23. Meanwhile, the North and South Santiam populations of UWR Chinook remain at very low levels, and UWR steelhead have declined. Third Schroeder Decl. ¶¶ 34, 36.

The Corps has raised numerous excuses and dragged its feet to avoid implementing critical RPA measures, with the end result that significant harm is still occurring to these species from operation of the Willamette Project. *See* Third Schroeder Decl. ¶¶ 30-31, 47-48; Second Domingue Decl. ¶¶ 4-5, 41-42; Second Johnson Decl. ¶¶ 6-10, 24 (confirming harm from ongoing Corps operations). As explained by Plaintiffs' expert, the Corps' operations have contributed to the continual decline of these species, and major alterations to the dams and dam operations—particularly improved access to habitat above the dams—are needed for the survival and recovery of these species. Third Schroeder Decl. ¶¶ 38-39, 42, 46-48. Because the Corps' operations continue to impair species that were already in jeopardy and to adversely modify habitat that was already degraded, its ongoing operations are violating ESA Section 7. *NWF v. NMFS*, 524 F.3d at 929-30, 935; *NWF v. NMFS*, 184 F. Supp. 3d at 930.

IV. The Corps' Continued Operation of the Willamette Project is Violating ESA Section 9.

Finally, the Corps' ongoing actions will cause unlawful "take" of UWR Chinook salmon and steelhead. Violating the conditions of an Incidental Take Statement abrogates the safe harbor provision of that statement, leaving the agency liable for violating ESA Section 9. *Or. Nat. Res. Council v. Allen*, 476 F.3d 1031, 1039-40 (9th Cir. 2007); *Or. Nat. Desert Ass'n v. Tidwell*, 716 F. Supp. 2d 982, 999, 1005 (D. Or. 2010). NMFS stated in the 2008 BiOp that incidental take would occur as a result of the continued operation of the Willamette Project dams and reservoirs under the RPA. BiOp at 11-6. To authorize such take, NMFS must specify the

"impact" of that take on the species, and conclude that it will not jeopardize the species. 16 U.S.C. § 1536(b)(4).

In the 2008 BiOp, NMFS estimated the maximum amount or extent of take anticipated to occur during implementation of the RPA and explained that, "[a]s the RPA and Proposed Action are implemented, incidental take in the forms of adult and juvenile passage mortality and due to adverse water quality and quantity conditions is expected to decline." BiOP at 11-5 to 11-6. NMFS concluded that because it had already determined the RPA was not likely to result in jeopardy to the species, it had fully considered the effect to the species from the amount and extent of take authorized in the incidental take statement. *Id.* at 11-10. NMFS then identified additional terms and conditions to further minimize impacts to the fish during specific activities, such as construction projects, revetment work, research, and the hatchery program. *Id.* at 11-40. Importantly, NMFS stated that "[t]hese terms and conditions constitute no more than minor changes because they only provide further elaboration on the more general measures in the [Proposed Action] and RPA." *Id.*

NMFS's statements make clear that one of the conditions of the incidental take statement was that the Corps would implement the RPA. By not carrying out numerous important measures from the RPA that were expected to reduce the amount of mortality and injury to the species, the Corps has not met a key condition of the Incidental Take Statement. "Take that exceeds the conditions of the [Incidental Take Statement] invalidates the safe harbor provision of the [Incidental Take Statement], leaving the agency that authorized the activity resulting in take liable for violating § 9." *Tidwell*, 716 F. Supp. 2d at 1005. Moreover, the failure to implement critical RPA components undermines NMFS's conclusion that the authorized take would not jeopardize the species. BiOp at 11-10. This too invalidates the Incidental Take Statement. *See*

Hoopa Valley, 230 F. Supp. 3d at 1119-20, 1133; 16 U.S.C. § 1536(b)(4)(B) (agency can authorize incidental take as long as it will not jeopardize the species).

Because it is no longer shielded by the Incidental Take Statement, the Corps is violating ESA Section 9 by operating the Project dams and reservoirs in ways that result in fish mortality and injury as well as habitat degradation that significantly impairs the species' breeding, feeding, and migration behaviors. 16 U.S.C. § 1538; 50 C.F.R. § 17.3; *Wishtoyo Foundation v. United Water Conservation Dist.*, 2018 WL 6265099, at *58 (C.D. Cal. Sept. 23, 2018). As discussed above, and in the BiOp, the Corps' operations of the Willamette Project continue to kill and injure these fish and degrade their habitat due to impacts that impair their migration, spawning, incubation and rearing, which constitutes take. BiOp at 11-6; *supra* pp. 5-6, 12-23. For instance, substantial injuries and mortalities continue to occur every year when juvenile fish attempt to pass through the reservoirs and dams during downstream migration, and from collection of adults for upstream migration. *See e.g.* USACE 209570, 209606 (high mortality during downstream passage in North Santiam); USACE 251508, 251540-45 (examples of injuries from Detroit Dam); USACE 209570, 209663 (low passage survival at Cougar Dam (36-42%)); USACE 802627-28 (examples of injury and mortality during passage study at Cougar Dam); USACE 460488 (injuries at Dexter fish facility); NMFS 3723 (Dexter problems worse than other collection facility that was upgraded); USACE 209570, 209660, 209662 (low downstream passage success at Lookout Point Dam). These and other forms of take will continue to occur from the Corps' operations of the Willamette Project, in violation of ESA Section 9.

CONCLUSION

For the foregoing reasons, Plaintiffs respectfully request the Court grant their motion for summary judgment.

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Respectfully submitted,

/s/Lauren M. Rule

Lauren M. Rule (OSB #015174)
Elizabeth H. Potter (OSB #105482)
ADVOCATES FOR THE WEST
3701 SE Milwaukie Ave, Suite B
Portland, OR 97202
Tel: (503) 914-6388
lrule@advocateswest.org
epotter@advocateswest.org

Attorneys for Plaintiffs